(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (CENTRE OF THE OF THE PATENT COOPERATION TREATY (CENTRE OF THE OF THE OF THE OF THE

(19) World Intellectual Property Organization International Bureau





WO 2004/008720 A1

(43) International Publication Date 22 January 2004 (22.01.2004)

PCT

(51) International Patent Classification7: H04Q 7/20

H04M 1/00,

(21) International Application Number:

PCT/US2003/022086

(22) International Filing Date: 12 July 2003 (12.07.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/395,256

12 July 2002 (12.07.2002)

(71) Applicant (for all designated States except US): SPATIAL WIRELESS, INC. [US/US]; 1651 Glenville Drive, Suite 210, Richardson, TX 75081 (US).

(71) Applicants and

- (72) Inventors: TIAN, Lu [CN/US]; 3513 Walington Drive. Plano, TX 75093 (US). XU, Jianming [US/US]; 4305 Vanderpool Drive, Plano, TX 75024 (US).
- (74) Agents: BLISS, Timothy_F. et al.; Haynes & Boone, LLP, 901 Main Street, Suite 3100, Dallas, TX 75202-3789 (US).

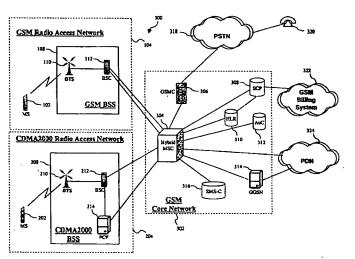
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC. LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM). European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE. AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH. CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU,

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR THE USE OF DIFFERENT WIRELESS TECHNOLOGIES WITHIN A HYBRID SWITCH PROTOCOL STACK



(57) Abstract: Provided is a method and system for enabling communication between mobile devices (102, 202), radio access networks (RANs; 104, 204), and core networks (CNs; 302) based on different specifications and underlying technologies. For example, a mobile station (MS; 102, 202) may be compatible with multiple standards or specifications (e.g., GSM and CDMA), and may need to communicate with a network via an interface that is not compatible with the network (e.g., a GSM network and a CDMA interface). A hybrid MSC (304) that is compatible with both standards may be provided between the GSM network and the CDMA interface. In some examples, the hybrid MSC (304) may inherit components or functionality from both the network and the interface, which enables the hybrid MSC (304) to handle messages from both without needing to change either of them. For example, the hybrid MSC (304) may receive messages from the network and encapsulate them in one or more messages compatible with the interface for transmission over the interface.

